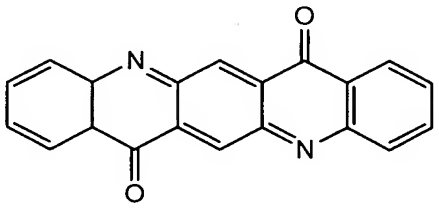
We claim:

1. An extruded sheet comprising a propylene polymer comprising beta-spherulites in an amount sufficient to produce a K-value of about 0.2 to 0.95 when measured by x-ray diffraction or to show a beta crystalline melting peak during the first or second heating scan when measured using a differential scanning calorimeter.

2. The extruded sheet of claim 1, wherein the beta-spherulites are formed by incorporating a beta- nucleating agent into a resinous propylene polymer.

3. The extruded sheet of claim 2, wherein the beta-nucleating agent is used which is present at a level ranging from 0.1 to 5000 ppm.

4. The extruded sheet of claim 3, wherein the beta-nucleating agent is present at a level of about 0.1 to 100 ppm and has the structural formula:



5. The extruded sheet of claim 3, wherein the propylene polymer is a polypropylene homopolymer or blend thereof.

6. The extruded sheet of claim 3, wherein the propylene polymer is a random or block copolymer selected from the group consisting of copolymers of propylene and ethylene, copolymers of propylene an α-olefin with 4 to 12 carbon atoms, copolymers of polypropylene and a mixture of α-olefins with 4 to 12 carbon atoms, and copolymers of propylene and ethylene and one or more α-olefins with 4 to 12 carbon atoms.

7. The extruded sheet of claim 1, further comprising perforations in the form of a square or rectangular pattern of depressions.

8. The extruded sheet of claim 7, wherein the sheet is uniaxially oriented.

9. The extruded sheet of claim 7, wherein the sheet is biaxially oriented.

10. A polypropylene web comprising an extruded sheet comprising a propylene polymer comprising beta-spherulites in an amount sufficient to produce a K-value of about 0.2 to 0.95 when measured by x-ray diffraction or to show a beta crystalline melting peak during the first or second heating scan when measured using a differential scanning calorimeter.

11. A method for making a polypropylene web, comprising

(a) melt forming a polymeric sheet, comprising a resinous polypropylene polymer and a beta-nucleating agent,

(b) quenching the polymeric sheet at a quench temperature sufficient to produce a polypropylene sheet comprising beta-spherulites in an amount sufficient to produce a K-value of about 0.2 to 0.95 when measured by x-ray diffraction or to show a beta crystalline melting peak during the first or second heating scan when measured using a differential scanning calorimeter,

(c) extruding the quenched sheet,

(d) perforating the extruded sheet, and

(e) orienting the perforated sheet uniaxially or biaxially, wherein the orienting step comprises heating the perforated sheet to a temperature less than or equal to 155 °C.

12. A biaxially oriented polypropylene web made from an extruded sheet comprising a propylene polymer comprising beta-spherulites in an amount sufficient to produce a K-value of about 0.2 to 0.95 when measured by x-ray diffraction or to show a beta crystalline melting peak during the first or second heating scan when measured using a differential scanning calorimeter, wherein the web has thickness in the node junction region between the machine direction and transverse direction strands that is at least 10% less than that of a biaxially oriented web made from an extruded sheet with no added beta nucleant and the same starting sheet thickness.

13. The web of claim 12, wherein the extruded sheet can be run at line speeds that are at least 5% faster than the line speeds for an extruded polypropylene sheet with no added beta nucleant and the same starting thickness.

14. The web of claim 12, wherein the web has a tensile strength measured at 2% elongation in the machine direction, that is at least 10% higher than that of a biaxially oriented web made from an extruded polypropylene sheet with no added beta nucleant and the same starting thickness.

15. The web of claim 12, wherein the web has a tensile strength measured at 5% elongation in the machine direction, that is at least 10% higher than that of a biaxially oriented web made from an extruded polypropylene sheet with no added beta nucleant and the same starting thickness.

16. The web of claim 12, wherein the web has a torsional rigidity that is at least 10% higher than that of a biaxially oriented web made from an extruded polypropylene sheet with no added beta nucleant and the same starting thickness.